

CLAIMS

1. A crosslinked polymer bead which, when:
 - (i) functionalized with a 2-chlorotrityl chloride group;
 - (ii) coupled with Leu to 0.65 mmol/g; and
 - (iii) coupled with Glu(t-Bu);

allows coupling of FMOC-Lys(BOC)-OH at an amount of 1.5 equivalents in the presence of 1.5 equivalents of HOBT, 1.5 equivalents of DIEA and 1.5 equivalents of HBTU, to be completed, as determined by the Kaiser test, in no more than 35 minutes.

2. The bead of claim 1 in which the bead is a styrene polymer.
3. A functionalized crosslinked polymer bead produced by a method comprising steps of:
 - (a) swelling the bead in a first solvent or solvent mixture to a volume from 200% to 310% of its volume when dry; and
 - (b) contacting the bead with a functionalizing reagent in a second solvent or solvent mixture capable of swelling the bead to a volume from 200% to 310% of its volume when dry.
4. The functionalized crosslinked polymer bead of claim 3 in which the bead is a styrene polymer having from 0.5 mole percent to 1.5 mole percent of monomer residues derived from a crosslinker.
5. The functionalized crosslinked polymer bead of claim 4 in which the bead is swelled to a volume from 220% to 300% of its volume when dry; and the bead is contacted with a functionalizing reagent in a second solvent or solvent mixture capable of swelling the bead to a volume from 220% to 300% of its volume when dry.
6. The functionalized crosslinked polymer bead of claim 5 in which the functionalized bead is loaded with 0.25 to 0.7 meq/g of an amino acid.
7. A functionalized crosslinked polymer bead produced by contacting the bead at 100% to 200% of its volume when dry with a functionalizing reagent in a solvent or solvent mixture capable of swelling the bead to a volume from 200% to 400% of its volume when dry.
8. The functionalized crosslinked polymer bead of claim 7 in which the polymer bead is at 100% to 150% of its volume when dry when contacted with the functionalizing reagent.

9. The functionalized crosslinked polymer bead of claim 7 in which the bead is a styrene polymer having from 0.5 mole percent to 1.5 mole percent of monomer residues derived from a crosslinker, and the solvent or solvent mixture comprises nitrobenzene.

10. The functionalized crosslinked polymer bead of claim 9 in which the functionalized bead is loaded with 0.25 to 0.7 meq/g of an amino acid.